INCH-POUND

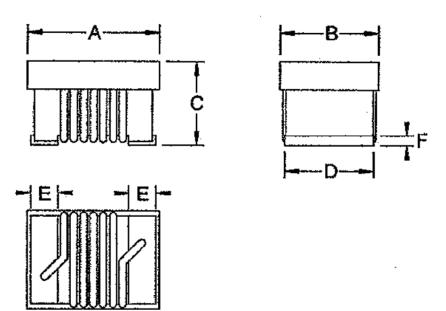
MIL-PRF-83446/36B w/Amendment 1 4 April 2014 SUPERSEDING MIL-PRF-83446/36B 1 June 2012

#### PERFORMANCE SPECIFICATION SHEET

# COILS, RADIO FREQUENCY, CHIP, OPEN CONSTRUCTION, SURFACE MOUNT, 0603 SIZE

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-PRF-83446.



		INCHES	MILLIMETERS	
	Α	0.071 Max.	1.80 Max.	
	В	0.047 Max.	1.19 Max.	
	С	0.040 Max.	1.02 Max. For Termination finish A	
		0.043 Max.	1.09 Max. For Termination finish B or F	
	D	0.030 (Ref. Only)	0.76 (Ref. Only)	
	Е	0.018 (Ref. Only)	0.44 (Ref. Only)	
	F	0.008 (Ref. Only)	0.20 (Ref. Only)	

#### NOTES:

- 1. Dimensions are in inches.
- 2. Metric equivalents are given for general information only.

FIGURE 1. <u>Dimensions and configuration</u>.

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TABLE I. <u>Electrical characteristics (initial)</u>.

Inductance and Q are tested using HP4291A or HP4287A with test fixture 16193A, or equivalent.
Self resonant Frequency tested using HP8753C, or equivalent.

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TABLE II. Electrical characteristics (final).

Inspection group	Allowable percent variation				
Qualification Inspection:	Inductance 1/	Q <u>2</u> /	Self-resonant Frequency	DC resistance	
Group II Group IV Group V	±5 ±5 ±5	-10 -10 -10	-8 -10 	±3 (+.001 ohm) ±3 (+.001 ohm)	
Quality Conformance Inspection:					
Group C Subgroup II Subgroup IV Subgroup V	±5 ±5 ±5	-10 -10 -10	-10 -8 	±2 (+.001 ohm) ±3 (+.001 ohm)	

 $<sup>\</sup>underline{1}\!/$  From initial measurement.  $\underline{2}\!/$  From specified minimum value in electrical characteristics (initial) table.

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#### **REQUIREMENTS:**

Dimensions and configuration: See figure 1.

Bond strength: Force 1 pound.

Weight: 0.008 gram, maximum.

Operating temperature range: -55°C to +125°C.

Temperature rise (at +90°C): +35°C.

Maximum operating temperature: +125°C.

Altitude: 70,000 feet.

Solderability: Test method S of J-STD-002, except solder preforms may be used or MIL-STD-202, method 208, test method B. Both terminals immersed simultaneously. Magnet wire and bond are excluded from solder coverage.

Dielectric withstanding voltage: MIL-STD-202, method 301, test voltage 200 Vrms for 5 seconds for quality conformance.

Barometric pressure: MIL-STD-202, method 105, test condition C, (70,000 feet), test voltage 80 Vrms.

DWV, Barometric pressure and Insulation resistance tests are to be performed with units mounted to a test substrate. Tests are moved to after visual/mechanical inspection of qualification Group I, and after electrical characteristics (initial) of subgroup II groupC.

Electrical characteristics (initial): See table I.

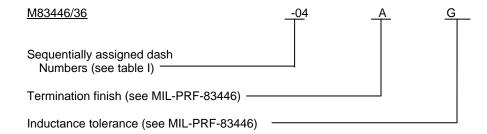
Electrical characteristics (final): See table II.

Vibration: MIL-STD-202, method 204, test condition D. During testing, each part to be monitored for electrical continuity. Any discontinuity exceeding 100 microseconds shall be cause for rejection.

Mechanical shock: MIL-STD-202, method 213, test condition I. After test, parts are to be inspected for mechanical damage and verified for electrical continuity.

Vibration and Mechanical shock testing shall be performed as part of Group V tests for qualification (before moisture resistance) and as part of subgroup V (semiannually) for group C testing. Parts shall be mounted on test substrates.

Part or Identifying Number (PIN): The PIN shall be in the following form:



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Changes from previous issue. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

#### Referenced documents.

MIL-PRF-83446 MIL-STD-202 J-STD-002

Custodians: Army - CR Navy - EC Air Force - 85

DLA - CC

Review activities:

Army - MI Navy - AS, OS Air Force - 19 Preparing activity: DLA - CC

(Project 5950-2014-009)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <a href="https://assist.dla.mil">https://assist.dla.mil</a>.